



MIOSHA Fact Sheet

Construction Safety & Health Division

Rough Terrain Fork Trucks

Rough terrain fork trucks have become a common piece of equipment in all aspects of the construction industry. Masons use them to load block onto scaffolds, carpenters use them to move lumber, and ironworkers use them to bolt up structural steel. Manufacturers have designed fork trucks with booms that will extend over 100 feet! Some fork trucks are even equipped with controls that can be operated from an attachable work platform. MIOSHA has investigated serious injuries and fatalities related to fork trucks contacting overhead power lines, fork truck roll-overs and the use of inadequate aerial work platforms on fork trucks.

The possibilities for use of the rough terrain fork truck are endless. Along with all this newer technology and methods of using fork trucks, there are more reasons to be concerned about safety. The operators of fork trucks must have the appropriate training and skill to safely operate the specific equipment they are using.

APPLICABLE STANDARDS:

MIOSHA Construction Part 13, Mobile Equipment references ASME/ANSI B56.1, Safety Standard for both Low lift and high lift Industrial Forklift Trucks. Therefore, when alleging a violation for deficiencies or improperly using a rough terrain fork truck, MIOSHA would issue a general duty violation with a reference to ASME/ANSI B56.6. The training requirements for operating a fork truck are located in Part 13, 1926.602(d). The employer is required to provide certification of training for employees that are assigned to operate a rough terrain forklift. The training requirements for a fork truck with or without a personnel platform are the same as those for a powered industrial truck.

MIOSHA Construction Part 12, Scaffolds and Scaffold Platforms addresses aerial work platforms used on fork trucks. Such work platforms must be designed and built to specifications and must be positively secured against the back of the forks with a mechanical device so that the platform cannot tip or slip. When using a rough terrain fork truck that is equipped with a work platform to elevate personnel, the rules that apply are located in Part 12, Rules 1243 and 1245.

MIOSHA Construction Part 10, Lifting and Digging Equipment addresses "**Multi-purpose machine**" **means** a machine with removable forks or tongs that is configured to hoist by means of a winch or hook and can horizontally move a load. When a Rough terrain fork truck is configured in this manner all of Part 10 shall apply.

MIOSHA Construction Part 1, General Rules addresses operating equipment too close to power lines. Part 1, Rule 115, requires that a minimum distance of 10 feet be maintained from an energized power line. This minimum distance increases as the voltage of the electrical source exceeds 50 kilovolts. MIOSHA Part 1, Rule 114 requires an Accident Prevention Program at construction sites that must address all hazards, including hazards associated with fork truck use.

SAFETY PRACTICES WHEN OPERATING ROUGH TERRAIN FORK TRUCKS:

- Allow only qualified employees to operate the equipment and only to the ability of their training.
- Perform an inspection of the equipment. Check all functions, equipment and safety devices.
- Make sure back-up alarms are working properly. Use a signal person when the operator cannot visually see.
- An operator must wear a seat belt at all times when operating the fork truck.
- Take care when traveling on uneven ground and slopes. Keep the boom and load as low as possible when traveling.
- Maintain proper clearances from power lines.
- Do not allow any “riders” on the equipment.
- Be sure to lower the boom, shut off the engine, and engage the parking brake when exiting the operator’s station.
- Do not park the fork truck on an incline and leave it unattended. If you must park on an incline, block the wheels.
- Do not leave the fork truck unattended. The truck is unattended when the operator is 25 feet or more away and in view, or at anytime the truck is not in view of the operator.
- Do not allow anyone to stand or pass under the elevated portion of a fork truck, whether empty or loaded.
- Do not exceed the rated load of the machine or the forks.
- Make sure all loads are secured.
- Drive slowly and in accordance with conditions at the site.

ADDITIONAL SAFETY PRACTICES WHEN ELEVATING PERSONNEL:

- A pre-lift meeting should be conducted.
- Securely attach the work platform to the back of the forks.
- The work platform must be in compliance with Part 12, Rule 1243(2):
 - Continuous guardrail system with toeboard.
 - Safety factor of four times the maximum intended load.
 - Wood planking, steel plate or grating bolted or welded to the bottom of the platform.
 - Permanent sign that specifies the maximum number of passengers, the work platform identification number, and the maximum rated load.
 - High-visibility color or marking.
- The floor dimension width of the work platform cannot be more than the overall width of the truck measured across the load-bearing tires plus 10 inches on either side.
- The elevated personnel must wear a harness and lanyard that is attached to a suitable anchorage point.
- The operator of the fork truck must remain in the operator station while an employee is elevated.
- No horizontal movement (driving) while an employee is elevated. Employees must exit before repositioning the fork truck.
- Do not use the guardrails to climb up on, support materials, or support other work platforms.
- Do not use ladders, planks, railings, or other material to gain more height or reach.

COMPLIANCE ASSISTANCE:

If you would like additional assistance, please contact the Construction Safety and Health Division at 517-322-1856 or the Consultation Education and Training Division at 517-322-1809. Construction Safety Standards and other information can be viewed on the MIOSHA website at www.michigan.gov/miosha.

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